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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/397,414	09/16/1999	H. ROSS WILLIAMS	99RSS271	8705

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AKIN, GUMP, STRAUSS, HAUER & FELD
711 LOUISIANA STREET
SUITE 1900 SOUTH
HOUSTON, TX 77002

EXAMINER

TIEU, BINH KIEN

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 08/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/397,414

Applicant(s)

WILLIAMS, H. ROSS

Examiner

BINH K. TIEU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, 7-11, 13-14, 16-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (U.S. Pat. #: 6,212,263) in view of Damoci et al. (U.S. Pat. #: 4,958,371).

Regarding claim 1, Sun et al. ("Sun") teaches an apparatus, such as PCI/modem card 150 as shown in figure 4, for interfacing customer premises equipment (i.e., Computer C) with a telephone network (i.e., PSTN 206, Fig. 2), comprising:

an interface within the customer premises equipment (i.e., the modem card 150 within the computer "C") that is coupled to the telephone network (i.e., to PSTN 206), the interface comprising a current source (i.e., power supply 414 in figure 4) provides a constant current to the customer premises equipment when the customer premises equipment is off-hook (i.e., providing power to computer "C" when it is in either "ON" mode or "SLEEPING" mode, col.6, lines 20-39 and col.7, lines 5-55); and

a tip conductor and a ring conductor, both the tip line and the ring conductors are coupled to the interface (see POTS line 202 in figure 2).

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It should be noticed that Sun teaches the power supply 114 operating as a current source to provide the constant current to the customer premises equipment when it goes off-hook. Sun fails to clearly teach the power supply 114 providing the constant current to the customer premises equipment when a line impedance of the telephone network varies in a predetermined range when the customer premises equipment is off-hook. However, Damoci et al. ("Damoci") teaches such well-known features in col.5, lines 30-48 for a purpose of having a modem to go off-hook, or having it go back on-hook if it was off-hook.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of providing the constant current to the customer premises equipment when a line impedance of the telephone network varies in a predetermined range when the customer premises equipment is off-hook, as taught by Damoci, into view of Sun in order to maintain the average DC biasing current of a data signal.

Regarding claim 3, note PSTN 206 providing POTS service on POTS line 202 as shown in figure 2, col.4, lines 46-49.

Regarding claims 4 and 5, Damoci further teaches limitations of the claims in col.2, line 66 – col.3, line 3.

Regarding claim 7, Damoci further teaches limitations of the claim in col.2, lines 42-60.

Regarding claim 8, Sun further teaches limitations of the claim in Figure 6.

Regarding claim 9, Sun teaches an apparatus, such as PCI/modem card 150 as shown in figure 4, at a customer premises (i.e., Computer C) is coupled to a telephone network (i.e., PSTN 206, Fig. 2), comprising:

a receiver (i.e., Receiver as shown in figure 6);

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an interface coupled to the receiver and the telephone network (i.e., the modem card 150 within the computer "C") that is coupled to the telephone network (i.e., to PSTN 206));

the interface comprising a current source (i.e., power supply 414 in figure 4) provides a constant current to the customer premises equipment when the customer premises equipment is off-hook (i.e., providing power to computer "C" when it is in either "ON" mode or "SLEEPING" mode, col.6, lines 20-39 and col.7, lines 5-55); and

a tip conductor and a ring conductor, both the tip line and the ring conductors are coupled to the interface (see POTS line 202 in figure 2).

It should be noticed that Sun teaches the power supply 114 operating as a current source to provide the constant current to the customer premises equipment when it goes off-hook. Sun fails to clearly teach the power supply 114 providing the constant current to the customer premises equipment when a line impedance of the telephone network varies in a predetermined range when the customer premises equipment is off-hook. However, Damoci et al. ("Damoci") teaches such well-known features in col.5, lines 30-48 for a purpose of having a modem to go off-hook, or having it go back on-hook if it was off-hook.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of providing the constant current to the customer premises equipment when a line impedance of the telephone network varies in a predetermined range when the customer premises equipment is off-hook, as taught by Damoci, into view of Sun in order to maintain the average DC biasing current of a data signal.

Regarding claims 10 and 16, Damoci further teaches limitations of the claims in col.2, line 66 – col.3, line 3.

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Regarding claim 11, Sun further teaches PSTN 206 providing POTS service on POTS line 202 as in figure 2, col.4, lines 46-49.

Regarding claim 13, Sun further teaches limitations of the claim in Fig. 4.

Regarding claim 14, Sun further teaches limitations of the claim in Fig. 6.

Regarding claim 17, Sun teaches a method of providing a constant current to an apparatus, such as the modem card 150 shown in figure 4, coupled to a telephone network (i.e., PSTN 206, Fig. 2), comprising the steps of:

connecting the apparatus to a tip and a ring conductor (i.e., connecting the modem card 150 to POTS line as shown in Fig. 2); and

taking the apparatus off-hook (i.e., modem card in “ON” mode or operational mode) (col.6, lines 20-39 and col.7, lines 5-55).

It should be noticed that Sun teaches providing power supply to the modem card. Sun fails to clearly teach the features of sinking a constant DC bias current while off-hook, where the DC bias current is independent of a load on the tip and the ring conductors. However, Damoci teaches such features in col.2, line 66 – col.3, line 10 for a purpose of determining line status for connection of a modem to the line.

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate the use of sinking a constant DC bias current while off-hook, where the DC bias current is independent of a load on the tip and the ring conductors, as taught by Damoci, into view of Sun in order to optimize the data transmission for the modem.

Regarding claim 11, Sun further teaches PSTN 206 providing POTS service on POTS line 202 as in figure 2, col.4, lines 46-49.

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Regarding claim 18, Sun further teaches PSTN 206 providing POTS service on POTS line 202 as in figure 2, col.4, lines 46-49.

Regarding claim 20, Damoci further teaches limitations of the claims in col.2, line 66 – col.3, line 3.

3. Claims 2, 6, 12, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (U.S. Pat. #: 6,212,263) in view of Damoci et al. (U.S. Pat. #: 4,958,371) as applied to claims 1, 9 and 17 above, and further in view of Seazhotz et al. (U.S. Pat. #: 5,737,706 as cited in the previous Office Action).

Regarding claims 2 and 12, Sun and Damoci, in combination, teaches the POTS line 202 connected subscriber premises equipment to either or both PSTN 206 and Broadband Network 208 for voice and data communications purposes. Therefore, other interfaces or protocols are also used for such data transmissions. Such protocols included, for example, EIA/TIA-496-A interface between Data Access Arrangement (DAA) or Data Circuit Terminating Equipment (DCE) of a modem and the PSTN was provided in November 1989, or EIA/TIA-578 interface for asynchronous Facsimile DCE control standard, provided in May 1987, etc. However, Sun fails to clearly teach such EIA/TIA-496-A interface. Seazholtz et al. (Seazhotz) teaches radio communication devices such as portable telephone set and a base station for data communications there between providing a plurality of different interface included EIA/TIA-496-A interface (col.23, line 66 – col.25, line 15) for handling a particular data communications.

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate the use of such EIA/TIA-496-A interface, as taught by

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Seazhotz, in view of Sun and Damoci in order to provide necessary electrical interface criteria for modem data transmissions.

Regarding claims 6, 15 and 19, Seazhotz further teaches the telephone network is Centrex or PBX system (col.11, lines 13-23).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Although the Detering et al. (U.S. Pat. #: 6,292,544) and Amrany et al. (U.S. Pat. #: 6,538,510) are not applied into this Office Action, they are also called to Applicants attention. They may be used in future Office Action(s). Both these references are also concerned with an apparatus for interfacing customer premises equipment with a telephone network having an interface within the customer premises equipment that is coupled to the telephone network. The interface comprises a current source to provide constant current to the apparatus.

Response to Arguments

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Any response to this final action should be mailed to:

Box AF

**Commissioner of Patents and Trademarks
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Or faxed to:

**(703) 872-9314 (for formal communications; please mark
"EXPEDITED PROCEDURE")**

Or:

**If it is an informal or draft communication, please label
"PROPOSED" or "DRAFT")**

Customer Service (703) 306-0377

**Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal
Drive, Arlington, VA. Sixth Floor (Receptionist).**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (703) 305-3963 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (703) 305-4708 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**



**BINH TIEU
PRIMARY EXAMINER**

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Date: August 15, 2003